PATENTS
112047-0064
P7863

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of: Alexander T. Garthwaite et al.	)	
	)	Examiner: Not Yet Assigned
Serial No.: Not Yet Assigned	)	
	)	
Filed: October 2, 2003	)	Art Unit: Not Yet Assigned
	)	
For: Deferring and Combining Write Barriers for a Garbage-Collected Heap	)	
	)	

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
October 3, 2003

"Express Mail" Mailing-Label Number: EV 336 756 259 US

Commissioner for Patents
P.O. Box 1450
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In keeping with the duty of candor and good faith owed to the Patent and Trademark Office, Applicants wish to bring to the Examiner's attention the references listed on the accompanying form PTO-1449. A copy of each listed reference is enclosed.

To the extent required by 37 C.F.R. §1.98(a)(3), Applicants have described what they consider to be the relevance of any foreign-language reference. The Office may find additionally relevant material in these or other references.

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Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known	
Application Number	Not Yet Assigned
Filing Date	October 2, 2003
First Named Inventor	Alexander T. Garthwaite et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	112047-0064

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	1	RICHARD JONES, ET AL., Garbage Collection: Algorithms for Automatic Dynamic Memory Management, 1996, John Wiliey & Sons Ltd., England.	
	2	STEFFEN GRARUP, ET AL., Incremental Mature Garbage Collection: M.Sc. Thesis, August 1993, Aarhus Univerisity, Computer Science Department, Denmark.	
	3	PAUL R. WILSON, Uniprocessor Garbage Collection Techniques [Submitted to ACM Computing Surveys], pages 1-67.	
	4	RICHARD L. HUDSON, ET AL., Incremental Collection of Mature Objects, University Computing Services, University of Massachusetts, Amherst, Massachusetts.	
	5	JACOB SELIGMANN, ET AL., Incremental Mature Garbage Collection Using the Train Algorithm, Computer Science Department, Aarhus University, Denmark.	
	6	ANTONY L. HOSKING, ET AL., Protection Traps and Alternatives for Memory Management of an Object-Oriented Language, pages 1-14, Object Systems Labratory, Department of Computer Science, University of Massachusetts, Amherst, Massachusetts.	
	7	ANTONY L. HOSKING, ET AL., A Comparative Performance Evaluation of Write Barrier Implementations, pages 92-107, Object Systems Labratory, Department of Computer Science, University of Massachusetts, Amherst, Massachusetts.	
	8	HENRY LIEBERMAN, ET AL., A Real-Time Garbage Collector Based on the Lifetimes of Objects, 1983, MIT Artificial Intelligence Labratory.	
	9	ANDREW W. APPEL, Simple Generational Garbage Collection and Fast Allocation, March 1988, revised September 1988, Department of Computer Science, Princeton University, Princeton, New Jersey.	
	10	RICHARD HUDSON, ET AL., Adaptive Garbage Collection for Modula-3 and Smalltalk, October 27, 1990, pages 1-5, Object Oriented Systems Laboratory, Department of Computer and Information Science, University of Massachusetts, Amherst, Massachusetts.	
	11	ANTONY L. HOSKING, Remembered Sets Can Also Play Cards, pages 1-8, Object Systems Laboratory, Department of Computer Science, University of Massachusetts, Amherst, Massachusetts.	

Examiner Signature		Date Considered	

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Sheet 2 of 2

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Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	112047-0064

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	12	PATRICK G. SOBALVARRO, A Lifetime-Based Garbage Collector for LISP Systems on General-Purpose Computers, September 1988, pages 1-59, Department of Electrical Engineering and Computer Science at the Massachusetts Institute of Technology.	
	13	PEKKA P. PIRINEN, Barrier Techniques for Incremental Tracing, pages 20-25, Harlequin Limited, Barrington Hall, Barrington, Cambridge CB2 5 RG, UK.	
	14	P. T. WITHINGTON, How Real is "Real-Time" GC?, October 6, 1991, Symbolics, Inc., Burlington, Massachusetts.	
	15	URS HOLZLE, A Fast Write Barrier for Generational Garbage Collectors, October 1993, pages 1-6, Computer Systems Laboratory, Stanford University, California.	
	16	BENJAMIN ZORN, Barrier Methods for Garbage Collection, November 1990, pages 1-37, Department of Computer Science, University of Colorado at Boulder, Boulder, Colorado.	
	17	RICHARD L. HUDSON ET AL., Sapphire: Copying GC Without Stopping the World, Concurrency and Computation: Practice and Experience Special Issue: Java Grande/ISCOPE.	
	18	SCOTT NETTLES, ET AL., Real-Time Replication Garbage Collection, Avionics Lab, Wright research and Development Center, Aeronautical Systems Division (AFSC), U.S. Air Force, Wright Patterson AFB, Ohio.	
	19	STEVEN S. MUCHNICK, Advanced Compiler Design Implementation, 1997, Chapters 7, 8, and 12, Morgan Kaufmann Publishers.	
	20	ALEXANDER T. GARTHWAITE ET AL., Specializing Write-Barriers for Objects in a Garbage Collected Heap, U.S. Patent Application Serial No. 10/464,371, filed on June 18, 2003.	

Examiner Signature		Date Considered	

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